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ABSTRACT

Research on interaction and environment as factors in infant development is reviewed, descriptions of developmental stages and their implications for curriculum are discussed, and suggestions for using the "developmental roles" perspective in handicapped and normal infant education are outlined. Optimal experiences for infants and toddlers are reported as the presentation of motivating stimuli specific to the cognitive level of the infant, a healthy attachment relationship, and game experiences which teach the baby his effect on the environment. Activities, interactions, and environmental design are discussed for infant development at four different stages (sample activities are in parentheses): 0-4 months (kinesthetic stimulation to aid the child in processing information and attending to more and more complex stimuli); 5-8 months (stimuli inviting more active exploration like "Busy Boxes"); 9-18 months (involving the infant in all family tasks, such as cooking and laundry, to encourage feelings of competence); and 19-30 months (providing low shelves with simply arranged toys so the child can maintain his own environment). (SBH)

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PARENTING AS A MODEL FOR INFANT EDUCATION: IMPLICATIONS FOR CURRICULUM

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Abstract

The paper includes three sections. (1) A review of the research on interaction and environment as factors in infant development is presented with implications for infant program rationales. (2) Detailed descriptions of developmental stages and implications for curriculum are discussed. (3) Specific suggestions for using the "developmental roles" perspective are outlined.

PARENTING AS A MODEL FOR INFANT EDUCATION: IMPLICATIONS FOR CURRICULUM

Infant education has come full cycle Before the "revolutionary" decade of the sixties the dogma was that mothers were the only adequate caretakers of infants, that infants were relatively incompetent, and that removing infants from their mother's care inevitably resulted in affective dysfunction in the infant. In the sixties, as educators began to respond both to the increase in the number of working mothers and to the disappointment of preschool education as an intervention strategy, formal infant education appeared. In general early infant education was an extension downward of preschool education. Infant day care centers resembled classrooms and mothers were trained to be tutors and teachers (Painter, 1971).

However these early experiments failed, for the most part, to produce significant, lasting gains in infant functioning (Palmer, 1972; Schaeffer, 1972). Bronfenbrenner (1973) concluded that the model of infant education in which an outsider was postulated as necessary to counteract the inadequate mother-child interaction, undercut the parent-child relationship and was deleterious to the child's functioning. He demonstrated that only those programs that supported the mother-child interaction or tried to affect the child's environment succeeded in producing significant longitudinal improvements in functioning. At the same time others (e.g., Baratz & Baratz, 1970) started to question the bias in the assumptions infant education made about parents. Research began to accumulate (e.g., White & Watts, 1973) which suggested that "good mothering," without an academic orientation,

resulted in highly competent infants and toddlers. Parenting behavior and infant development were examined in greater depth. As a result, infant educators are beginning to re-examine their assumptions about optimal strategies of infant intervention. The Infant-Parent Training Program has sought a model in natural parent-child interaction.

Optimal Experiences for Infants and Toddlers

McCall (1975) has argued that all human beings have two functions which are continuous through life--a disposition to acquire information about the environment and a disposition to control the environment. At different periods of development these functions are evidenced in diverse behaviors; thus there is both stability and change in development. In addition, McCall states that both predeterminism and panexperientialism are oversimplified views of development. Instead, it is the match between particular experiences and particular dispositions at particular times that accounts for the impact of experience on the infant. Research in several areas supports the importance of this experience-disposition match.

Siqueland and DeLucia (1969) demonstrated that young infants will suck differentially to obtain a view of a picture. McCall (1975) has synthesized a decade of research on the discrepancy hypothesis and concluded that infants are most interested in new but processable information. Piaget (1954) had hypothesized an optimal level of novelty which stimualtes infants to risk an informational challenge in the environment. This research suggests that while even young infants are motivated to learn, the motivating stimuli must be quite specific to the cognitive level of the infant. Thus the notion that "the more the better" applies to infant stimulation is not supported.

Escalona (1968) had found that individual infants have different developmental styles. Some are active and deal with the world by moving and grasping. Others are more passive and spend time looking and listening. Freedman (1975) has found different infant styles in different gene pools. The existence of individual styles implies that infant stimulation best suited for individual babies may differ from baby to baby.

Watson (1970) has studied what appears to be a key experience for infants. This is the development of "The Game." In the game the adult makes a response contingent on a given infant behavior. Thus the infant coo's and the adult bounces him. The game may be initiated by either party and may become more elaborate. This kind of experience, which first occurs in the first half year, is extremely rich. It combines pleasant sensory and affective stimuli with a simple experience teaching the baby his effect on the environment. Furthermore, it binds the adult and child closely and is the model for reciprocal interaction.

The game and the social smile are two early precursors of full blown attachment relationships which occur in the second half year of life. Bowlby (1973) believes that a healthy attachment relationship is the basis for optimal emotional and social functioning throughout life. Attachment is a good example of how a function (proximity of the child to the mother) is reflected in diverse behaviors (crying, smiling, proximity seeking, language) over the course of life. According to Bowlby, a child who has a good attachment relationship has a secure base from which to explore. An attached child generalizes the positive affect generated by the primary relationship to other relationships.

Bronfenbrenner (1973) sees the mother-child attachment as providing motivation to the child to succeed in tasks and motivation in the mother

to invest herself in the child. Those who study severely handicapped infants have stressed the importance of firm attachment relationships.

> The most severe deficit any baby can have is the absence of meaningful relationships. . . . It is for this reason that we place such importance on our essential work in promoting the love bonds between the blind infant and his parents. The greatest benefits that accure from the subsequent introduction of techniques for developing investment in inanimate objects, for "teaching" the hands to learn and to "see" and become adaptively useful, for surmounting the particular obstacles to gross motor development, depend first on the presence of a lively rewarding relationship between the baby and his parents. (Faiberg, Smith and Adelson, 1969)

The attachment of the baby also provides some energy for the development of imitation, which is the basis of later symbolic functions. The strong affective bonds of the baby to his family and the function of imitation allow the child both to do one-trial learning of a variety of behaviors and to learn "chunks" of chained behaviors at one time. This is particularly efficient for the child in the second year before language has become an efficient mode of learning. Imitation is also the link between movement and acting, and all the varieties of representation (Morehead and Morehead, 1974).

It is clear that all of these developments, the game, attachment and imitation, have both cognitive and affective implications. Thus the separation of cognitive from affective development in infancy is artificial. The construct that best captures the inseparability of cognition and affect in infancy is "play." Play includes "the game," attachment activities and imitation. In early infancy, it includes sensorimotor play and practice games in which the infant develops notions of permanence, time, space and causality, while simultaneously enjoying himself. In toddlerhood play allows the infant to explore social relationships (social play), fears (fantasy), as well as physical relationships (experimentation). In play children acquire both aspects of competence, mastery and effectance (Nardine, 1971).

The Optimal Interpersonal Environment

During the panexperientalistic sixties, the optimal infant environment was hypothesized to contain verbal, rational adults and rich, varied developmentally appropriate objects. It was generally assumed that this environment was limited to middle class homes. Recent research (White and Watts, 1973; Yarrow, Rubenstein, and Pedersen, 1975) has suggested that the optimal environment for a given infant is one that creates a growth facilitating match with his particular style and stage. Particular objects and styles cannot be specified. Yarrow, Rubenstein and Pedersen's study (1975) demonstrated that particular aspects of the environment generally effect specific aspects of development. For instance the amount of visual stimulation in the environment was related only to the social responsiveness of babies. It was the combination of environmental inputs that had an impact. The following quotations reflect the key findings of the Yarrow, Rubenstein and Pedersen (1975) study:

> The early environment of the infant is not simply warm or cold, responsive or unresponsive, depriving or stimulating. These global characteristics mask the richness and complexity of the infant's experiences. (p. 155)

> The fundamental significance of this study lies in the findings that differentiated relationships exist between specific dimensions of the environment and specific dimensions of infant development. (p. 157)

> In thinking about existing models of stimulation we are struck by the extent to which there is an implicit assumption that more is better--that more stimulation, either greater frequency or intensity, by itself facilitates development. While some justification exists for this model, there are a number of reasons why it is undoubtedly simplistic. (p. 166)

> We believe, however, that there are no simple recipes for childrearing. Interacting with an infant is an art in which general principles of child development must be sensitively adapted to human individuality. (p. 173)

White and Watts (1973) found that the mother who produced competent children was a good environmental designer. The environment was arranged so that it encouraged children to explore and manipulate it with a minumum of risk and frustration. Learning can be built into the environment in two ways. Whatever objects that are available can be presented in a way that structures learning, e.g., a sorting box with blocks progressively added, a pile of assorted beans with an egg carton. Learning can also be incorporated naturally in environmental routines such as bathing, cleaning house, diapering, by involving the infants in these activities (e.g., cleaning) or adding interest to the environment (e.g., a magazine cutout over the diaper area).

Both White and Watts (1973) and Brazelton (1974) have stressed the importance of parents attitudes towards childrearing in facilitating development. The most supportive attitude seems to be valuing the childrearing role as important, without becoming a professional mother bent on producing a superchild. It seems likely that a mother must feel good about herself as a person to feel good about herself in relation to her child. Bronfenbrenner (1973) has suggested that a mother who feels comfortable about her relationship to and care of the child can have the most impact on his achievement.

In addition to designing the environment and feeling comfortable as a parent, the "good" parent is sensitive in interpreting and responding to her baby's cues. Bell and Ainsworth (1971) found that mothers who responded quickly to their babys' crying in the first three months produced children who were attached and communicative later on. Nelson (1972) found that the ability of parents to match their interpretations of toddlers' language to the children's meanings, facilitated language acquisition. The parents' interpretation of cries not only encourages language development and enhances

attachment, it also convinces the child that he is effective in operating on his world.

A final component of parenting which becomes crucial in the toddler years is discipline. Brazelton (1974) argues that children need caring reasonable limits to (1) feel that parents care, (2) be reassured that there is reason in the world, (3) have available energy for learning which would otherwise be wasted in seeking limits. Baumrind's (1967) studies of preschoolers support this. Creative, independent, competent children have warm, supportive parents who set clear, reasonable, firm limits.

Implications for Infant Programs

Infant development between birth and 2-2 1/2 years can be grouped into four qualitatively different stages. At each stage certain kinds of activities, interactions and environmental design are indicated.

0 to 4 months. At this stage the infant is relatively passive; he learns to process information from and attend to more and more complex stimuli. Stimuli which are rewarding in being both interesting and suitable for processing are those which are moderately novel, (McCall, 1972). Kinesthetic stimulation seems to be particularly important for enhancing diverse aspects of development (Yarrow, Rubenstein, and Pedersen, 1975). While the match of stimulus and disposition is important for later motivation babies appear to enjoy what might be overwhelming stimulation in the context of interaction games with people they are becoming attached to (Escalona, 1968). Parents and other caretakers, at this stage, can be most helpful by providing sensitive systematic care which fosters security and allows the infant to reserve energy for sensory exploration. The environment can be provided with varying, "matched" stimuli so that the awake infant has processable material around him. Objects suspended over the midline will facilitate

the development of handmeeting. Pictures, handmade mobiles, and objects suspended by strings can be placed in all caretaking areas (feeding, car seat, diapering, washing). Pictures, which are changed periodically can be taped first to the side and later on a stick over the crib. Later, interesting objects within reach will motivate directed reaching and early attempts at movement. Babies can be strapped to parents in soft infant carriers which allow the infant to experience tactile kinesthetic and varying visual-auditory stimuli while the parent works.

In this stage as in others, the most important stimuli are human. Yarrow, Rubenstein and Pedersen (1975) found that both animated and inanimante stimuli are important and that neither can replace the other. At this early stage parents' communication to their infants is multidimensional, simultaneously tactile, kinesthetic, visual, auditory, olfactory, cognitive and affective. No toy provides such a powerful combination of sensations, and no toy has the variety of contingent responses to the infants' moods and behaviors. This powerful sensory experience is absorbed by the infant throughout the day during all sorts of activities. The parents' verbal and nonverbal communication in this stage provides the basis for the child's later language development.

It is during this first stage that The Game arises. Social smiling to the adult's face is one of the earliest games. Some babies will vocalize when bounced. Others will flail their limbs when a mobile is moved and then stopped, or a music box played. Still others will vocalize when an adult vocalizes. The steps involved in generating reciprocal games are (1) encouraging some response when the adult's action is occurring, (2) repeating a contingent response to a behavior initiated by the infant, (3) initiating the response and encouraging the infant subsequent response. Piaget has called these contagion, mutual imitation, and sporadic imitation.

5 to 8 months. The Game is the prototype activity for the activities of the second stage in which the infant explores contingent events and his ability to manipulate. In the first stage the infant has learned to process simple perceptual information, to continue or repeat behaviors which result in interesting stimuli, to stabilize his physiological functioning, and to feel secure and loved in his environment. In the second stage he will explore cause and effect, coordinate trunk, arms and eyes to manipulate objects, and strengthen his affectual ties to a few specific people in his life.

In this stage, as in the previous one, the infant's environment is limited in space to the places in which he sleeps (crib), eats, is changed, travels (car seat) and plays. Fragile pictures and mobiles in these places can be replaced with stimuli inviting more active exploration. "Busy Boxes" and play gyms can be placed in the crib or strapped near the car seat. A texture picture of fabrics cemented to a board can be nailed to the wall within reach of the changing area. A contained play area, in a playpen, or on a blanket can be arranged with manipulable objects of cloth or with small handles that can be grasped by a child. It is useful for the play area to have boundaries so that toys do not roll out of reach, and to have visual access to household activity. Sound toys, in which the child's action produces a noticeable affect are particularly useful. (Note: since children in this stage "mouth" toys, tiny toys or toys with small removeable parts, should be avoided). A baby backpack, once the child can sit unsupported, allows the child to experience a range of environments with the parent.

The infant's exploration takes many forms, ranging from the examination of an object and experimentation with different schema's, to moving to explore his environment. All of these kinds of exploration are facilitated in natural baby games. Giving the infant different objects available in the

home (a brush, a cup, keys, a mirror, a scarf) exposes him to a variety of textures, smells, colors and sizes. Different objects naturally encourage different schema's. Keys can be shaken, banged, examined, tasted and jingled; an orange can be tasted, sniffed, squeezed and thrown. If an interesting object is placed within reach, the child at the developmental level of 5 to 8 months will sustain his glance towards, and eventually try to reach for it. The more advanced child will twist his body, hitch himself along or crawl to get an interesting object. An interesting environment, in which objects are not overwhelmed with competing stimuli, will motivate movement.

The Game of the previous period can be elaborated in this stage. Hiding objects and peek-a-boo games help children learn about the permanence of objects. Imitation games, in which the adult performs a simple behavior in the child's repertoire and the child imitates, strengthen and child's development of the ability to represent things through his own behavior. The original game, the adult's contingent response to a child's behavior, is still a favorite, as the child's initiating behavior becomes more complex. In the first stage the parent's bouncing or talking to the baby caused The Game to develop; the infant's behavior was moving, vocalizing or smiling. Now the infant will laugh, clap, attempt to mimic the parent's behavior, while the parent's behavior may be "dancing" a doll across the floor, making a face, or saying a nonsense rhyme.

Children learn much about their power to effect the environment through their parents' everyday responses to their cues. For example, if the child is making a hungry cry and the parent proceeds to feed him, the child learns both that his communication can be effective and that his world is one in which basic needs are met. A child who does not feel that his communication is effective will not learn to talk; a child who does not

feel that his needs are met systematically will not develop strong relationships with people.

9 to 18 months. White and Watts (1973) have argued that the next two stages are crucial to the development of competence in children. While the requirements for parenting are relatively simple in the first two two stages, the child's attempts at independence make the period of 9 to 30 months one of the most challenging periods for parents and other caretakers. The stage from 9 to 18 months is characterized by the infant's achievement of mobility and important developments in the areas of imitation and language.

At this stage the environment of the child expands and the role of the parent in arranging the environment changes. The parent must become a designer of environments. The environment which has become accessible to the child must be made safe through the removal of dangerous objects and substances. It is also wise to remove, temporarily, fragile objects. Once these two steps are taken the environment is available for free, self-directed exploration by the child. It is especially important at this stage when the child's curiosity is intense, that as much as possible of his home environment be available to him without limits.

However the environment for the infant can be more than a neutral setting. It can be used positively to facilitate initiative and exploratative behavior. For instance one low cabinet in the kitchen can become the baby's cabinet, with assorted pots, spoons, measuring cups, so that the baby can imitate his parents cooking. A box of sponges, scrubbers, plastic jars and assorted beans, placed in the corner of the kitchen will provide hours of exploration while household chores are done. A large box with flaps cut in the side gives the baby a private place to retreat to, and stage ambushes from. Hiding or rolling balls behind furniture helps the

child develop his concepts of space and object permanency. An outdoor environment with logs to climb on or to pull on, tires to climb into or crawl through and sand, water, rocks to explore encourages the practice of a variety of motor skills.

This is also a good time to teach the infant to "read" the environment. An area in each room can be made special for baby by taping up a picture of the activity that occurs there, placing a brightly colored box or blanket to define it or by moving the baby's "special" chair into it. The child will gradually learn how different areas of the environment are used and which parts of the environment are available to him.

One of the best ways to positively involve the curious infant is to include him in all family tasks. Cooking exposes him to textures, smells and tastes, demonstrates various motor schema's and provides a model for sequencing of steps in time. Helping repair a piece of furniture allows him to practice eye-hand coordination and following directions. Folding the laundry teaches him the names, sizes and colors of clothing articles, a complex schema and various fine and gross motor skills. In addition these activities encourage the baby's feelings of competence and model various adult roles.

The ability of the infant to participate in activities described above has its foundation in the ability of an attached infant to imitate chains of behaviors performed by attachment figures in large chunks. Imitation at this stage, is impetus to the development of both cognition and personality. Through the powerful experience of reciprocal imitation, imitation of the child's acts by the parents, the child comes to realize his own influence on people. Through imitation of invisible gestures (sticking out tongue) which do not provide auditory-visual feedback, the child begins to separate the imitated action from the initiating action.

Soon environmental events serve as indices of other events. For example, a door creaking acts as an index to a person entering the room. The child's opening his mouth is an index which allows him to understand a matchbox opening.

Towards the end of this period the child is beginning to imitate behaviors which were not previously in his repetoire and actively attempts to approximate adult models. This behavior occurs in vocalization as well as in actions. Between 8 and 18 months the infant has learned to understand much of the simplified language addressed to him. He understands names for people and things, then simple questions and directions and then a broad range of language referring to everyday experienced events. Towards the end of this period, this comprehension, previously evidenced through action responses, is demonstrated in a rapidly increasing productive vocabulary and interest in naming.

Most parents naturally provide the language stimulation necessary to this process. One element is simply frequent talking to the child. As with any other stimuli, it is not true that the more language, the better. To be attended to any stimuli must be presented against a contrasting non-stimulating background; the same is true with language. Most parents simplify their language so the child is provided with the most essential sentence elements. "Would you like some cake, Bobbie?" becomes "Bobbie like cake?" This allows the child to focus, at first, on the basic elements of sentences. Reading picture books, describing the scenery on a walk, labelling items in the grocery store are all excellent language activities.

<u>19 to 30 months</u>. In the previous stage the child has begun to learn how to learn about and manipulate his environment at some distance from himself, through movement, imitation and language. In this final stage several important developments occur. Through imitation the child develops

representation and representative concepts of space, time, causality and permanency. Representation allows the development of memory and symbolic functioning, which together enable the child to operate on two mental images at once and thus explore relationships. Representation also leads to representative play and words that function as true signs rather than symbols. Representation converts problem solving from an active to a mental process.

In the area of affective development, this period is the one in which the child uses his attachment relations as a secure base from which to explore the limits of his behavior and autonomy; at the end of the stage he has established himself as an independent person in whom the controls first supplied by his parents are internalized. In addition, the child explores first through imitation and solitary play, and then through parallel play, the world of social relationships. Finally, it is in this stage that the motivation to be like attachment figures and the process of imitation, allow the child to learn most of his self-help routines automatically.

At the beginning of this stage the child has already learned to read and interpret his environment. At this stage the environment should be designed so he can arrange, maintain and operate in it. A small chair and table gives him a place for manipulative and expressive activities that he can arrange without adult assistance. Low shelves with a few simply arranged toys or a toy box makes it possible for him to maintain his environment himself. Toys can be grouped so that interesting activities suggest themselves. Beads and a paper bead pattern can be placed in an envelope. A box can contain some blocks, toy cars and toy people to encourage imaginative play. Outside, a pile of sand, can of water,

some cookie cutters and a sifter supply materials for a variety of activities.

A collection of cardboard boxes, tin can and bottles can be used for activities ranging from "cooking" on a box stove, to making a three box train, to playing house with box furniture and building with giant box blocks. While elaborate toys can be substituted for these items, the simple objects are more flexible and provide more exercise in divergent thinking, flexibility, fluency and representation. Other simple objects, a pulley with rope, food coloring and water, a magnet, allow the child to explore cause and effect relationships and natural phenomena.

Children in this phase of development move from expressing simple relationships through two words to multi-word utterances which can describe most daily occurrences. Parents unintentionally assist this development by trying to correctly interpret the child's statement. This interpretation gives the child feedback about his language and allows him to modify his hypotheses. For instance a child may call both spoons and forks "spoons." When the child holds up the fork and says "spoon" the parent may respond "it looks something like a spoon, but it's called fork." This statement gives the child feedback both on his pronunciation of the word, and on the extension of its meaning.

As a child's language matures, parents give additional kinds of feedback. "Doggie eat," says the child and the parent may respond, "the dog is eating," or "the dog is wagging his tail, too." The first response gives the child feedback on an alternative, more appropriate way to express the meaning; the second response elaborates on the meaning of the first. Both responses tell the child that his language is effective in communicating.

As in the previous stage, all the child's experiences can provide fruitful language experiences. A trip to the doctor can be used to talk

about things in the doctor's office, as well as to explore the child's fears. A box car game can be used to talk about parts of a car, the sequence of starting a car, an imaginary trip, and different ways the box can be used. These natural language activities can exercise the full range of language and cognitive skills involved in formal preschool activities.

Children between 19 and 30 months move from concepts requiring actions to concepts represented in words and images. Problem solving games, such as asking them how they can get a string of beads into a narrow can without tipping the can or predicting the path of a rolling ball, facilitate the transition to more abstract means-end and spatial concepts. Helping set the table allows them to develop a notion of sets, one-to-one correspondence, sequencing and spatial relations which are prerequisites for later classification, sequencing and number concepts.

In play children explore limits, relationships and fears which are found in their everyday experience. A child takes a doll, bangs its hand on a glass table and says "No, no, baby"; this allows the child to test the limit and provide the control simultaneously, which is an initial step to internalized control. Frequently 19 month olds initiate play with each other through a series of mutual imitations. The first baby pushes a swing; the second baby seemingly without noticing pushes the swing and then slaps the slide. The first baby slaps the slide and runs, etc. The children are using the familiar schema of imitation to explore the meaning of a relationship. Children also use play to deal with fears that they are incapable of dealing with abstractly. The 2 year old brings his rubber clown into the bath and insists that the clown's hair get washed first. The child reassures himself that the frightening experience of hair rinsing can be minimized by putting a washcloth over the clown's eyes.

As the first example in the paragraph above demonstrates, children use play to resolve some of the independence conflicts inherent in this stage. Parents can support the child in dealing with these conflicts by providing clear, firm, reasonable limits so that the child does not have to expend all of his energy seeking limits. Parents can also help by knowing what kind of behavior they want in different areas; parental ambivalence is quickly "read" by children and leads to endless limit seeking. At the same time children should be encouraged to make first simple and then more complicated choices in areas in which choice is possible. Thus parents will not want to pretend to give a child a choice on taking necessary medicine, since choice is not possible. However a child can be given a choice of which of two shirts he wants to wear. As the child learns to handle choices he can be given more complicated choices to make.

A Humanistic Philosophy of Infant Education

In this paper, the research and theory of infant development are reviewed from the perspective of intervention. For the last decade infant interventionists have argued that the specific special materials, special environments, special activities and special techniques are required for the optimum development of infants. This argument was based on inadequate research and the unwarranted application of assumptions of early childhood education to infancy. The effect of this argument has been to deprecate the value of natural parenting and the natural home environment for optimizing infant development. The extensive research of the last decade does not support this argument.

Instead the research suggests that materials, environments, activ- and techniques, which are part of caring homes, constitute the optimal intervention for normal infants,--that is, for many infants, good parenting

is both necessary and sufficient to encourage optimum development. Even in the case of severely handicapped infants, good parenting is a necessary condition of growth and progress.

The suggestions for curriculum demonstrate the implications of the philosophy of basing infant education on parenting, in the areas of environment and activities during the various stages of development between birth and 30-months. Over the course of this 2 1/2 year period parents fill four important roles. The first role is that of the loving adult who engages in reciprocal interaction with the baby. This role is the necessary base for all the other roles. The second role is that of a sensitive communicator who tries to interpret the infants full range of communication (body, face, gesture, vocal) and respond to it meaningfully. The third role is that of a designer of environments and the fourth role is a play facilitator and elaborator. From these four roles, emotional, language, motor, cognitive and social development proceed.

For parents, the program outlined in this paper can serve as both guidelines and support for developing their own individual styles of parenting. For infant programs for high functioning infants, this program can be used to develop role models for caregivers. Even for severely handicapped infants the role proposed above should be the framework within which therapy components are embedded. Thus it is the thesis of this paper that the roles fulfilled by the adults caring for and living with infants, rather than a set of activities or materials, that comprise infant curriculum.

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